

CHAPTER 12

CONSTRUCTION DRAINAGE

12-1. General. Proper consideration of drainage during construction can frequently prevent costly delays and future failures. Delays can occur not only because of damaged or washed-out facilities but because of shut-down resulting from environmental considerations.

12-2. Planning. Efforts to control delays or damages arising from construction drainage must begin in the planning stage and carry through to design and construction. Guide specifications have been developed by Division offices, but it is impractical to prescribe fixed rules to cover all eventualities. Protective measures cannot generally be reduced to biddable contract items.

12-3. Protective measures.

a. Runoff. Control of runoff problems during construction can be costly. Consideration of the following items will aid in maintaining satisfactory drainage during the construction period.

b. Natural drainage. Maximum use will be made of existing ditches and drainage features. Where possible, grading operations will proceed downhill, both for economic grading and to use natural drainage to the greatest extent.

c. Temporary drainage. Temporary ditches will be required to facilitate construction drainage. A particular effort will be made to drain pavement subgrade excavations and base courses to prevent detrimental saturation. Careful considerations will be given to the drainage of all construction roads, equipment areas, borrow pits, and waste areas. Temporary retention structures will be required in areas where open excavation can lead to excessive erosion or discharge of turbid water to local streams.

d. Final facilities. Installation of final storm-drain facilities and backfilling operations will be planned and timed to render maximum use during the construction period. Random excavation will be held to a minimum and finished surfaces will be sodded or seeded immediately.